

I. INTRODUCTION

- A. Purpose: To provide Department standards necessary for the installation, testing and inspection of draft hydrant systems installed on auxiliary water sources located within a Very High Fire Hazard Severity Zone (V.H.F.H.S.Z.).
 - 1. To provide Department standards for the identification of swimming pools or spas located within a V.H.F.H.S.Z.
- B. Scope: This regulation shall apply to all required draft hydrant systems on auxiliary water sources in the unincorporated area of Los Angeles County and in incorporated cities located within the V.H.F.H.S.Z. adopting Ordinance #95-0029.
 - 1. This regulation shall apply to all swimming pools or spas with a 5,000-gallon capacity or greater.
- C. Author: The Deputy Chief of the Prevention Services Bureau, through the Assistant Fire Chief (Fire Marshal) of the Fire Prevention Division, is responsible for the content, revision, and periodic review of this regulation.
- D. Authority: Los Angeles County Fire Code, Title 32, Section 903.5. and Section 903.6, Los Angeles County Plumbing Code, Title 28, Appendix G.

II. RESPONSIBILITY

- A. All individuals and companies who engage in the installation of swimming pools located in a V.H.F.H.S.Z. or are subject to the requirements of this regulation.
- B. All fire department personnel with enforcement responsibilities shall be guided by this regulation to ensure the proper installation of a draft hydrant system or proper identification of swimming pools or spas when required in a V.H.F.H.S.Z.

III. POLICY

A. Swimming Pools and Spas – Draft Hydrants

1. This Department in conjunction with the appropriate Building and Safety Office shall ensure that all new swimming pools and spas constructed in a V.H.F.H.S.Z. and having a capacity of 5,000 gallons or more, shall have a minimum 4 inch diameter drain and discharge line connected to a draft hydrant.
2. Exceptions:
 - a. Swimming pools constructed or installed with the bottom of the pool more than 15 feet below the proposed draft hydrant connection elevation, measured vertically, need not be provided with a draft hydrant system.
 - b. Properties that are adequately served by access roads that comply with fire department standards, and have a properly spaced fire hydrant capable of flowing a minimum of 1250 GPM (Gallons Per Minute) for 2 hours, may be exempted.
 - c. Residential properties built prior to August 13, 1995 where, in the opinion of the chief, there are practical difficulties causing an undue hardship the requirement may then be modified.

B. Swimming Pools and Spas – Identification

1. This Department shall ensure that all new or existing swimming pools and spas constructed or located in V.H.F.H.S.Z. with a capacity of 5,000 or more gallons shall be identified with a permanent sign. The sign is to indicate the presence of an emergency water source for fire fighting purposes.
2. Exceptions:
 - a. Swimming pools and spas constructed with a draft hydrant system and need not be identified with a pool sign.
 - b. Where curb address numbers are placed pools and painting a pool graphic next to the curb address numbers may identify spas.

IV. PROCEDURES

A. Swimming Pools and Spas – Draft Hydrants

1. Permits: Permit applications for a swimming pool located in a V.H.F.H.S.Z. shall be submitted at the appropriate Building and Safety office and forwarded to the fire department for review and stamped approval.

NOTE: The Fire Prevention Engineering Section shall review the pool construction drawings to verify compliance with requirements contained within this regulation.

2. Inspections: The appropriate Fire Prevention Division inspector shall inspect, test, and approve the draft hydrant system prior to final approval by Building and Safety.
3. General Requirements:
 - a. Supply Piping Requirements:
 - (1) The hydrant connection shall be made 18" above the lowest elevation of the pool.
 - (2) The piping system shall be installed in an approved manner and shall be separate (not interconnected) from the pool piping network
 - (3) A minimum 4" schedule 40 pipe shall be used to supply the hydrant.
 - (4) The pipe may be plastic, but only where buried. Pipe exposed to sunlight or above grade shall be galvanized steel.
 - (5) A minimum 6" grate shall be supplied at the pool connection, to eliminate debris from entering the piping.
 - (6) The depth of buries for underground pipe shall be a minimum of 24" with a minimum of 36", where subject to vehicular travel.
 - (7) Piping shall be installed to not create air pockets or unnecessary turbulence in the piping.

- (8) Piping shall be hydrostatically tested at 50 psi (min) for 2 hours.
- (9) After installation, the piping shall be thoroughly flushed to remove foreign materials that may have entered the underground piping during installation.
- (10) Prior to Building and Safety final approval the pool, grate, hydrant and identification sign shall be inspected and approved by the Fire Department inspector.

b. Hydrant Requirements:

- (1) The hydrant shall be an angle type wharf hydrant with a 4" NPT (National Pipe Thread) inlet, and a 2 ½" male, NST National Standard Thread) hose threat outlet. The outlet shall meet AWWA (American Water Works Association) C-503 requirements, or an approved equal without hand wheel. A plastic cap shall also be provided to protect the threads.
- (2) The hydrant outlet shall be within 5 feet of the access roadway on the approach side of the structure.
- (3) The hydrant outlet shall be a minimum 25 feet from the closest point of the structure.
- (4) The hydrant outlet shall be located 14 inches to 24 inches above finished grade (as measured from the center of the outlet).
- (5) The hydrant outlet shall be located such that access will not be impaired during engine operation (i.e., straight, clear access within 15 feet of each side of outlet).
- (6) Barricades shall be provided when potential hazards to the hydrant exist.
- (7) The hydrant shall be painted with two coats of red primer and one coat of fire engine red with the exception of the stem and threads.

c. Identification Size and Type:

- (1) All pools and spas with draft hydrants shall be posted with a permanent sign, indicating their presence.
- (2) The sign for pools and spas with drafting hydrants shall be a white fire hydrant icon, with a red background. (See Appendix)
- (3) The sign dimensions for drafting hydrants shall be a minimum 10 inches high and 7 1/2 inches wide.
- (4) Signs shall be rectangular in shape. The sign shall be a white retro-reflective, fade resistant, and able to withstand the elements. Graphics shall be white on red. The sign shall be adequately fastened to a sturdy post, with the top of the sign a minimum of 36" above the ground.

d. Identification Location:

- (1) For pools and spas with drafting hydrants, the sign shall be posted at the point of access to the hydrant, and shall be visible from the street or all-weather fire department access road. The hydrant shall be visible from the sign location.
- (2) At the discretion of the fire inspector, additional signs may be required to adequately direct the fire department to the water source. The inspector may direct that signs are posted at alternate locations if upon field inspection; such a location provides better visibility.
- (3) The property owner shall be responsible to maintain or replace the required signs if damaged or removed by unauthorized person(s). The property owner or occupant shall maintain the sign free of vegetative growth.
- (4) Signs shall not be tampered with or otherwise vandalized.
- (5) Signs shall not be removed without the permission of the Fire Chief or his authorized representative.

B. Swimming Pools and Spas – Identification

1. Inspections: Jurisdictional fire station personnel shall inspect and approve sign locations. Jurisdictional fire station personnel shall insure proper maintenance of signs during annual brush clearance inspection.
2. General Requirements:
 - a. All new or existing pools and spas, 5,000 gallon capacity or greater, located in V.H.F.H.S.Z. shall be identified by a permanent sign.
 - b. Exceptions:
 - (1) Swimming pools constructed with a draft hydrant system, and so identified, need not be identified with a pool sign.
 - (2) Where curb address numbers exist, pools and painting of a pool graphic next to the curb address numbers may identify spas. The pool graphic shall depict a white water-and-swimmer against a blue background. The pool graphic shall be rectangular in shape and a minimum of 4 inches high and 4 inches wide. The pool graphic shall be maintained in a legible condition and repainted as necessary.
 - (a) The pool or spa sign shall depict a white water-and-swimmer icon with a blue background. (See Appendix)
 - (b) The dimensions for pool or spa sign shall be minimum 10 inches high and 7 ½ inches wide.
 - (c) Pool and spa signs shall be rectangular in shape, with retro-reflective, fade resistant, and able to withstand the elements. Graphics shall be white on blue.
 - (d) Sign shall be securely fastened to a building or post, with the top of the sign a minimum of 36 inches above the ground.

- (e) Pool and spa signs shall be placed and maintained in such a position as to be plainly visible from the street or road fronting the property. Location shall be subject to Fire Department approval.
- (f) At the discretion of the fire inspector, additional signs may be required to adequately direct the Fire Department to the water source. The inspector may direct that signs be posted at alternate locations if upon field inspection, such a location provides better visibility.
- (g) The property owner shall be responsible to maintain or replace the required signs if damaged or removed by unauthorized person(s). The property owner or occupant shall maintain the sign free of vegetative growth.
- (h) Signs shall not be tampered with or otherwise vandalized.
- (i) Signs shall not be removed without the permission of the Fire Chief or his authorized representative.

APPENDIX

EXAMPLE OF POOL DRAFT HYDRANT IDENTIFICATION

